

CLAIMS

1. An electrochemical cell system comprising:

at least one cell having

an anode and at least one air cathode in ionic communication and electrical isolation, and

a cathode frame adjacent the air cathode, the cathode frame including an oxidant inlet and an oxidant outlet,

wherein the oxidant inlet and oxidant outlet are configured and dimensioned such that upon submergence of the at least one cell in a body of liquid, oxidant flow between the inlet and outlet is not prevented from accessing the air cathode by the liquid.

2. The electrochemical cell system as in claim 1, wherein each anode has a first surface and a second surface, further wherein a first air cathode portion is electrochemically coupled to the first surface of the anode and a second air cathode portion is electrochemically coupled to the second surface of the anode.

3. The electrochemical cell system as in claim 2, comprising at least a first cell and a second cell, wherein a single cathode frame is provided between air cathode portions of adjacent cells.

4. The electrochemical cell system as in claim 1, wherein a driving force for air flow is created upon discharge of the electrochemical cell due to the increased temperature of the air imparted by heat of electrochemical reaction.
5. The electrochemical cell system as in claim 1, further comprising a source of an external driving force for air flow.